WIND RIVER SPAS

User's Guide

Safety First!

At Wind River Spas you and your family's wellbeing is our number one concern. While we do everything possible to make the safest products available there are some precautions and potential dangers involved in operating a spa that you as a spa owner should be aware of...

Children

Children are attracted to water; this puts them at a higher risk of drowning. Never leave children unattended in the spa. Always close and lock down your spa lid after each use, (see Covers & Lifters in Spa Features section of this manual). Children are more susceptible to internal body temperature fluctuation than adults, because of this we recommend a water temperature that does not exceed 99 degrees Fahrenheit for smaller children.

Risk of Injury

The suction fittings, (see Suction Fittings in Spa Features section of this manual), in the foot well of your spa are specifically designed for the water pressure applied to them. Never restrict the flow of water to these fittings. Never remove the face of the suction fittings in the foot well of your spa while it is full and/or running. It is possible for hair, clothing, and accessories to be drawn to the suction and filter baskets, (see Skimmer/Filter in Spa Features section of this manual), if this occurs immediately turn off all the jets in the spa and/or the spa itself at the power source, (breaker panel or sub panel).

Pregnant Women

During the early stages of pregnancy there is a high risk of fetal damage in water temperatures that exceed the bodies natural temperature of 98.6 degrees Fahrenheit.

Risk of Electrical Shock

Do not allow any electrical appliances within 5 feet of the spa at any time. According to the National Electrical Code ANSI/NMFP A70-1993 you cannot install your spa within 5 feet of any metal surfaces and/or equipment without permanently grounding that metal surface with no less than No. 6 AWG (8.42 mm2) solid copper conductor to the power terminal box via the bonding lugs provided.

Controlled Substances

The use of alcohol, drugs, or medication before or during the use of your spa may cause drowsiness that can lead to drowning. Anyone suffering from or taking medication for obesity, heart disease, blood pressure, diabetes, or circulatory problems should always consult a physician before using the spa.

WIND RIVER SPAS

WWW.WINDRIVERSPAS.COM
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(Please read to avoid any installation issues, and unnecessary service charges.)

Introduction

Thank you for choosing to own a Wind River Spa. By doing so you have chosen to own the best hot tub available backed by the best customer service in the industry.

Over a quarter century of experience building spas specifically for Colorado's unique climate goes into every detail of your Wind River. It is this attention to detail that has molded the spa you have today into the ultimate hot tub experience. Over the history of Wind River many things have changed in our manufacturing process. This means we are always evolving with new innovations and better products in the interest of building the most stress and worry free spa possible. Providing you with the ultimate relaxation and therapy experience is the driving force behind our constant product innovations. We understand that poor customer service is contradictory to the principle of relaxation.

We are proud to say that our helpful staff and inclusive warranty have gained us the reputation for having the best-backed spa on the market. Achieving this reputation is easy for us because we have cut out the middle man process that puts the national brand retailers at a disadvantage. We answer only to our customers and not an out of state spa builder. When you talk we listen! So just sit back, relax, and enjoy your Wind River Spa.

Hydrotherapy

There are many different reasons for choosing to own a Wind River Spa. Hydrotherapy is the most common of these reasons. Hydrotherapy has many benefits, some of which you may not be aware of. The history of hydrotherapy for treatment of a wide array of ailments dates back to the early 18th century in Europe. The physical conditions that have been relieved throughout history with hydrotherapy are still the cause of too much suffering today. Today we have an even better understanding of the physical effects that stress has on our health, and are able to pinpoint certain conditions to stress related activity. This understanding only adds to the many known health benefits that hydrotherapy offers. Let us tell you about the many rewards that you as new spa owner will enjoy.

Buoyancy

The decent into the soothing hot water of your Wind River Spa is one of the few times us non astronaut types get to enjoy the relief of weightlessness. With today's active lifestyles most people have plenty of valid reasons for aching joints at the end of the day. Most of us can experience that pain with the physical stress that gravity alone can cause. The buoyancy of the water relieves gravitational joint stress and allows better circulation to the joints allowing damaged cartilage to heal. The reduction of body weight you experience in your spa also relieves the muscles that stabilize your body in normal conditions allowing them to repair broken down tissue more efficiently.

Hydrothermal Therapy

While buoyancy is important to the concept of hydrotherapy it is the thermal effect that hot water has on the body that relieves the widest array of symptoms. When submersed in hot water the nerves of the skin send impulses deep into the body. This helps reduce pain sensitivity while promoting improved blood circulation. The increase in blood flow stimulates stress hormones and the immune system improving the body's ability to fight off a wide array of conditions. Some of these conditions include but are not limited to circulatory disease, insomnia, diabetes, muscle weakness, atrophy, cramps, premenstrual syndrome, arthritis, balance disorders, back pain, and muscular-skeletal or soft tissue injuries. Other short-term symptoms like tense muscles or temporary vertigo can also be treated with a relaxing soak in your Wind River. The hot water in your spa will also open up the pours of your skin allowing toxins that may have sat below the surface of the skin for years to evacuate the body.

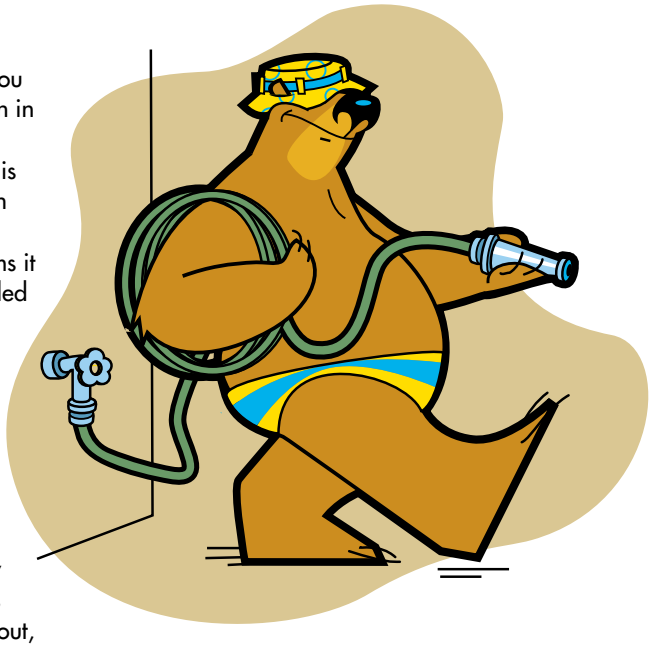
Massage Therapy

The rewards your spa offers through its massage feature benefit both the mind and body. Relief of muscle soreness is where the massage feature is most effective. On more physically active days your body can tense its muscles to the point that a lactic acid will cover your muscle tissue causing soreness and hyperactivity even as you attempt to sleep that night. A massaging soak in your spa increases blood flow to those muscles while oxidizing red blood cells. This allows energy from food and oxygen to upload into the muscle with ease buffing the lactic acid and relieving the soreness. This therapy is so effective it can relieve soreness you may not even be aware of until it's gone.

Safety Features

Your Wind River Spa is equipped with many safety features. Most of the safety features are in place to reduce the risk of mixing water and electricity. These features include various sensors and switches that are designed for shutting the system down in rare un-safe situations. A "Ground Fault Interrupter" is necessary in your breaker panel to fulfill the full potential of the spas electrical safety features. Other safety features include things like cover locks, hand grips for safe entry and exiting of the spa, and secondary suction sources for your pumps in case of restrictions or foreign objects like clothing getting caught on them. The orange warning label in your spa illustrated below should be left on and visible to anyone using the spa. For a more in depth description of your spas safety features refer to this section of the on-line comprehensive version of this manual at *www.windriverspas.com/ownersmanual*.

Initial Start Up



Filling The Spa... Every time you refill your spa you must remove the filter basket and place the hose down in the filter compartment as the spa fills, *(see Skimmer/Filter in the Spa Features Section of this manual)*. This is important because it primes the pumps of the spa with water. Failing to prime the pumps can cause an air pocket to form in the pump. Once the air pocket forms it will be trapped in the pump and no water can be pulled through it. If this happens you will hear your pump running but no water will come from the jets. There are two solutions to this problem outside of draining and refilling the spa through the filter. The first and easiest is to place your garden hose against one of the jets that is designated to the pump in question. If the pump is running and you can get enough water pressure into the waterline sometimes it will burp out the air bubble and start the water flow from the jets. The other option is to loosen the pumps suction union with the pump running to bleed the air out, *(see Pumps in Other Components section of the on-line comprehensive version of this manual for union location)*.

After filling the spa and priming the pumps another thing to keep in mind is your water level. The standard water level is two to three inches above the filter basket, *(see Skimmer/Filter in the Spa Features section of this manual)*. This is very important because if the water level drops below the filter level the pump may pull air bubbles into the line and trigger one of the safety switches in the heater. If the air makes it to the heater the spa will not heat and an error message will appear on the spa side. At that point you need to shut down the spa at the breaker while you refill. Make sure the spa has been off for at least five minutes before you turn it back on. It takes five minutes to power down completely and reset the programming. You will lose as much as one half to one inch of water per week to evaporation and water run off from people leaving the spa. The amount you lose is directly affected by the amount of usage so check the water level as you do your weekly chemical maintenance. To avoid errors in the spas system the spa must always be completely full if the power at the breaker is on. This process must be repeated every time you drain and refill your spa.

Initial Chemical Start Up... It is a good idea to wait until the spa has heated to at least 90 degrees Fahrenheit before adding chemicals. Warmer water will dissolve granules more efficiently and allow the chemicals to mix into the spa water quicker. Every tub that leaves our factory for a delivery has been wet tested and sanitized, but we still recommend adding a teaspoon of chlorine the first time you fill the spa to help with any possible contaminants collected during delivery. The majority of the time this will be all the chemicals you have to add, but sometimes the water in certain areas can require additional maintenance.

The type of water you have out of the faucet or spout depends on what part of the state you are in. In some areas you may have hard water, *(high level of calcium)*. Hard water is most common with people that use well water. In situations where the spa is full of hard water we recommend adding two ounces of a stain and scale control product the first week and one ounce per week there after, *(the chemical needed may have a*

different name according to brand so ask your chemical retailer for assistance). Stain and scale will prevent or reduce scaling of calcium on the water line or in the spa components while making the water softer on the skin. Often people in hard water areas have soft water filters in their house. If you have a soft water filter, DO NOT fill the spa with soft water only. The best thing to do in this situation is to fill the spa with half-hard water from the spout outside and half soft water from inside. If half and half is not possible than hard water is better than the alternative because stain and scale product can be added to help avoid calcium build-up, *(see Chemical Maintenance in this section of the manual for dosages).*

Soft water by itself makes for severe pH and Alkalinity fluctuations that can be hard on your skin and the spa. If your area water supply is short on calcium you may have trouble balancing your water. If you find you have the symptoms of soft water then have a water sample tested for calcium and add "calcium hardness increaser" as needed. Use the chart below for gallons and the chart on the chemical bottle for the dosage needed to get to two hundred PPM of total calcium hardness. This only needs to be done when the spa is filled with fresh water, and should stay at the level you get it set to until the spa is drained and filled again.

The last initial chemical maintenance you may require is to balance the alkalinity and pH. Your chemical start up kit includes a set of test strips for checking chlorine, alkalinity, pH, and Cyanuric acid, *(see Chemical Maintenance in this section of the manual).* After you have followed all of the preceding instructions find a still part of the spas water to submerse the test strip for fifteen seconds, then pull it out and compare it to the color chart on the bottle of strips immediately. As with the hardness increaser the pH and alkalinity chemicals will have dosage charts on the bottle according to gallons so the same charts apply.

Using the gallon chart below, find your model and use the gallon amount to follow the directions on the bottle. Adjust as deemed necessary by the chemical balance test strips provided. *The gallon amounts listed are not exact amounts, but are accurate and mathematically easy enough for use with your spa chemicals.*

84 x 60 250 Gallons	78 x 78 300 Gallons	82 x 82 (W/ Lounger) 400 Gallons
Alpine	***Timberline***	***Hurricane***
Passage	***Journey***	***Vail***
Virtue	***Vitalizer***	***Summit***
—	—	***Voyage***
—	—	***Rejuvenator***
82 x 82 (W/O Lounger) 450 Gallons	**92 x 92 (W/ Lounger) 500 Gallons**	**92 x 92 (W/O Lounger) 550 Gallons**
Cyclone	***Tornado***	***Typhoon***
Steamboat	***Aspen***	***Telluride***
Sierra	***Rocky***	***Avalanche***
Endeavor	***Destiny***	***Odyssey***
Fortitude	***Stamina***	***Endurance***

Chemical Maintenance

Sanitizers... At Wind River Spas we pride ourselves in having the closest possible system to Chemically free. This is not to say that you will not have to add chemicals to the water, however; if maintained properly you can get into chemical free water every time you use it. This is only possible because of our continuous clean filtration system. Your spa is designed to filter up to fifty five gallons per minute all day and filters the entire body of water in your spa every 8-10 minutes. It is a combination of this filtration and the latest in ozone technology that enables you to enjoy chlorine, bromine, and peroxide free water every time you soak in your new spa. The reason this is possible is because of the corona discharge ozone that comes standard with every Wind River Spa. This new design of ozone is capable of holding the light frequency needed to create ozone gas almost twenty-four hours a day, everyday for up to five years. The only part of any day that the ozone doesn't run is the twenty minutes after the spas jet pumps are engaged, *(see Ozone in the Safety Features part of the Health and Safety section of the on-line version of this manual).*

The ozone gas will eliminate most algae, fungus, or bacteria that could build up in the water when not being used. Regardless of how clean a person is when getting in the spa, the ozone's sanitizing power is not enough to clean the amount of contaminants a person's body ads. To ensure the water is clean again for the next use you must add at least half of a teaspoon of chlorinating granules per person each time you get out of the spa. The less often you use the spa the more chlorine you must add after each use, *(check the chlorine to usage chart in this section of the manual).* By doing this you will sanitize the water as needed based on your usage. Unlike bromine or peroxide a small dosage of chlorine will dissipate in the water after a few hours leaving only Cyanuric acid as a residual. Since Cyanuric acid is harmless and only builds up in extremely small doses, *(much of which is burned off by UV from the sun)*, the water is clean and chemical free the next day when you're ready to use it again. To ensure this try to leave 4-5 hours between uses so as to allow the chlorine to dissipate.

If more than two people use the spa the dosage of chlorine you add increases so allow more time for the chlorine to dissipate. If anyone chooses to use the spa shortly after chlorine has been added it will still be perfectly safe but the water may smell of the chemical a little bit. Fortunately the amount you add per person is small enough that it shouldn't be harsh on your skin even if used again directly after being treated. There are other sanitizing systems such as bromine, peroxide, or silver nitrate wands, however; we will not discuss those in this manual as use of them is contradictory to our spa design and will void your warranty in most situations.

Water Balance... Once a week you will need to check the balance of the water. The balance consists of two things, alkalinity and pH. If your calcium is at an appropriate level, *(see Initial Chemical Start Up in the Initial Start Up part of this section of the manual)*, and you are changing your water at least every four months than your balance should stay consistent. To check the balance you will need to use test strips like the ones provided in your initial chemical kit.

Every week you should dip a test strip in the water and remove it, then wait 15 seconds and compare it to the color chart provided on the bottle. You want your alkalinity to test as close to one hundred PPM as possible, and your pH to test between 7.2 and 7.8. If your balance is off use the gallon chart in this section of the manual to determine your spas water capacity, then use that information in coordination with the directions on the bottle to determine dosage. Once this is balanced you should have to do very little in this area until the next drain and refill.

If you are having consistent fluctuations in your water balance you will need to check the calcium level of the water in your area of the state and adjust it accordingly, *(see Initial Chemical Start Up in the Initial Start Up part of this section of the manual)*. These are the only weekly maintenance chemicals that need to be checked consistently, but there are situations that can occur that will require additional chemical treatments. These include but are not limited to hard water, high amounts of detergents from bathing suits, hair products, or high amounts of lotions and/or body oils rinsing from the spa users into the water. The symptoms of these problems are cloudy water, foam build up, clogged filters, and build up on the walls of the spa at the water line. There are specific treatments for each of these symptoms, but you should only seek them out as needed since the problems are not consistent and vary from user to user. The easiest way to avoid all of these symptoms is to rinse off in the shower in whatever you intend to ware in the spa before each use.

CHLORINE USAGE CHART

After Every Use *(if used over 3 times per week)* **= 1/2 Teaspoon Per Person Per Usage.**
After Every Use *(if used 3 times per week or less)* **= 1 Teaspoon Per Person Per Usage.**
If Not Used For 1 Week = Add 1 Teaspoon W/O Use.
If Not Used For 2 or More Weeks = Add 1 Teaspoon Per week Not Used.

Cleaning The Filter

Weekly Cleaning... Once a week as you do your chemical maintenance you should pull out the filter and give it a good rinsing off. This can be done with a garden hose, however we suggest using hot water when you can to help rinse off oils easier. There is a spray on filter cleaner that can be used in coordination with the weekly rinsing, but it's not necessary if you soak the filter in cleaner consistently. Do not let the filter dry before it has been soaked according to the following instructions first.

Filter Soak... The best and most efficient way to clean your filter is to submerse it in a chemical soak designed for breaking up minerals, oils, and other possible contaminants. First determine how much to add based on the directions given on the bottle. Add the required amount to a five-gallon bucket of warm to hot water and submerse the filter in the deluded chemical for at least six hours. For average usage, *(two people three to four times a week)*, we recommend soaking your filter in the enzyme formula every three months. This is the longest you should wait in-between soaks even if your usage is lower than average. If your usage is above average than increase the amount of soaks you give your filter. If you're an everyday user of the spa, double the amount of soaks the filter is given in a year. It is extremely important that the filter is soaked in this formula before you let the filter dry. If there are body oils and lotions caught in the filter, they may solidify as it dries and the filter will be ruined.

Filter Rotation... A single filter in a spa with average usage, *(two people three to four times a week)*, that is cleaned as the preceding instructions describe, has a life of no more than one year. The longevity of your filters can be increased with a good rotation program. If during each filter soak you rotate between two filters of the same age they will last up to fifty percent longer. When the filter that has been in use last is pulled out to be cleaned, put the second filter in the spa for the next cycle of use. Be sure that the filter pulled out of the spa is soaked in filter cleaner before it dries. If it dries before it's cleaned throw it away. If you soak it clean and rinse it out well however, than you should let it dry. By letting a clean filter dry you are allowing the fibers of the filter to re-adhere to each other and the micron rating of the filter actually improves as it dries. When you keep cleaning and using the same filter and it always stays wet the fibers keep getting looser and the micron rating that stops particles from passing through gets weaker. Rotating your filters is certainly not a necessity but it will improve the filter longevity by up to fifty percent.

Draining your Spa

The Drain... Always turn the power off to the spa at the breaker before beginning to drain the unit. The drain on all Wind River spas is designed to be usable with a standard garden hose. On all Wind River models it can be located near the equipment panel on the bottom part of the corner facing the same direction as the spa side control. The drain is a round black unit about 4 1/2 inches in diameter mounted on the outside of the spas panels, *(see photo reference in the Spa Features section of the manual)*.

To drain the spa remove the drain niche by pulling the black handle on top of the drain cap, (2 3/4 inch in diameter), turn the cap counter clockwise to remove. Then attach a hose to the on/off valve assembly. Run the hose to where you'd like the water to drain then open the on/off valve assembly to the "ON" position. It will also help to drain the spa quicker if you have any kind of downhill slope in your yard that you can run the hose down to help siphon the water out of the spa. If you're using a submersible pump to drain the spa, be aware they may have sharp feet on the bottom of the pump and their density is much greater than that of the water. This will cause the pump to sink to the bottom rapidly if dropped in the spa, and damage to the shell from this is considered excessive abuse and will not be covered under the warranty. To avoid damage to the spa shell, be sure to gently lower the pump into the water.

Drain Timeline... It is recommended that you drain the water in the spa at least every four months. The more often the spa is used the more often it needs to be drained. This is because each time you use the spa and add chlorine after that use the chlorine is leaving a residual behind called Cyanuric acid. Cyanuric acid is not harmful to you or your spa, but it will make your water cloudy and your chemicals very difficult to balance when too much has built up. The only way to eliminate Cyanuric acid from the spa safely is to drain and refill the spa. This is why a consistent draining timeline is necessary. We also recommend following the cleaning instructions in this section of the manual during at least one draining per year.

Cleaning Recommendations

Cover Care... The covers that come with every Wind River Spa are designed to withstand the elements as much as possible. In Colorado this concept takes on a whole different meaning due to its severe weather variations from season to season. To help the longevity of your cover we recommend cleaning the cover with a vinyl protectant four times a year. The only thing to remember in this matter is that most vinyl protectants made for cars are alcohol based and are not designed for an outdoor product like a spa cover. When choosing a protectant, check the ingredients closely to be sure there is no alcohol in it before using it on your cover. If clearing snow from the cover use caution as shovels or other rigid materials you may use could puncture the vinyl and allow water to be taken in and soaked up by the foam inside.

Shell Care... It is recommended that you clean the spa shell at least once per year when you drain it. The recommended product for cleaning the shell is de-natured alcohol. De-natured alcohol can be found in most hardware stores paint sections. We recommend this for cleaning because the alcohol completely evaporates after the cleaning. This means that there is no residual chemicals left on the walls of the spa when it's time to refill. If you use any cleaning product other than the de-natured alcohol you will need to rinse out the tub and drain the rinse water out of the spa again before filling it. If you don't rinse out the cleaner well enough the product will mix with the spa water and the chemicals in it causing foam build up and cloudy water. A dry cloth and a spray bottle of cleaner is all you should need to clean the shell. Do not use bleaching products, acetone, scouring pads, or any product with grit that may scratch the acrylic. We will not be responsible for damages that occur during cleaning unless only recommended products are used.

Panel Care... The panels that are installed standard on all models are weather resistant and non-porous. If your spa has the synthetic paneling a wipe down with a damp cloth should be all you ever need to clean with.

Spa Side Controls

The spa side is where you will control all of the electrical components designed for regular usage.
The diagram below lists all of the functions of the controller and what purposes they serve.

A) *LCD Screen...* The LCD screen will always display the current water temperature when the spa is not in use. The only time the screen does not read the current temperature is when the thermostat is being set up or down with the Warm or Cool buttons to set the desired new temperature. If any other reading appears it is an error message and you should refer to the Error Message Chart in the Troubleshooting section of this manual. Use the chart to diagnose what the error is and then call your Wind River Spas service center.

B) *Cleanup Mode Button...* The Cleanup Mode Button will turn all of the spas jet pumps on high speed for one minute. This function is best used for mixing chemicals into the water at the end of each use.
(see Chemical Maintenance in the Operating Procedures section of this manual)

C) *Pump 1/Off key...* Press Pump 1 key to turn Pump 1 on at low speed. Press a second time to turn pump to high speed (with a dual-speed pump*). A third time turns pump off. A built-in timer automatically turns pump off after 20 minutes, unless pump has been manually deactivated first.

D) *Pump 2 key...* Press Pump 2 key to turn Pump 2 on at low speed. Press a second time to turn pump to high speed (with a dual-speed pump*). A third time turns pump off. A built-in timer automatically turns pump off after 20 minutes, unless pump has been manually deactivated first.

E) *Clock Set Button...* Enter the program menu by holding down the Program key for 5 seconds. The display will show the current clock setting, the minutes will be on solid and the hours will flash. Depending on factory settings your system may be set to a 24-hour military notation or a regular 12-hour notation. Setting the hour: Use the Up or Down keys to adjust the hours (AM/PM). Press the Program key to jump to the next parameter, the minutes. Setting the minutes: Use the Up or Down keys to adjust the minutes. At this point you are done. After 30 seconds display will stop flashing.

F) *Light Button...* Press Light key to turn light on. A second press turns light off. A built-in timer automatically turns light off after 2 hours, unless it has been manually deactivated first.
The "Light" indicator lights up when light is on.

G) *Up/Down keys...* Use Up or Down key to set desired water temperature. The temperature setting will be displayed for 2 seconds to confirm your new selection. The "Set Point" icon indicates that the display shows the desired temperature, NOT the current water temperature! Default temperature is 100 on start up.

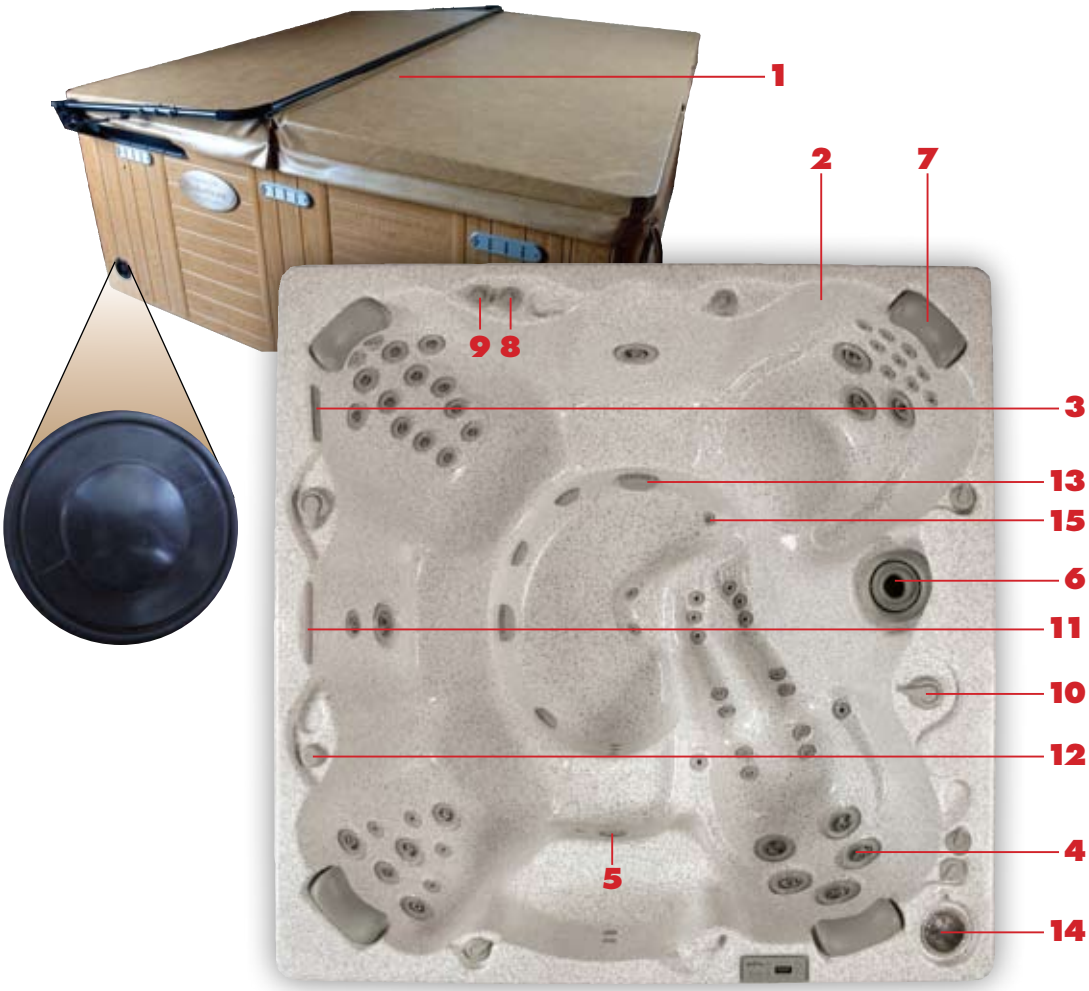
H) *Secondary Remote...* The Secondary Remote is a great option in your Wind River Spa as it allows you to operate the jets and the lights from anywhere within the range of the Secondary Remote.

**** If your spa is equipped with the In.touch feature, please visit both of the following links for operating instructions.*

https://www.geckoalliance.com/Documents/9919-101173.pdf

https://www.geckoalliance.com/Documents/Flyer_in_touch_EN.pdf

The picture diagrams below are marked with a numeric key that can be used for easy reference when you have questions about any feature on your spa. Some features may also be accompanied by another picture diagram that helps with the specifics of that unit. For a similar diagram and description of the spas other components see the on-line comprehensive version of this manual.



1) *Covers & Cover Lifters...* A cover for your Wind River Spa is included with every purchase. The bottom part of the cover that comes standard with a new spa is made of one pound polystyrene foam for insulation and lightweight. The top part is a rigid foam fiberboard with a 250-degree Fahrenheit temperature resistance. The foam is lined internally with a 2-inch heavy-duty aluminum channeling for added strength while maintaining a lightweight. The internal structure is then wrapped with a sealed vinyl that comes in a variety of colors. The vinyl is seamed together with a water tight melting process as opposed to a sewn seam that will take on water. This top vinyl can be cleaned and maintained to increase the longevity

of the cover, *(see Cleaning Recommendations in Operating Procedures section of this manual)*. The cover that comes with your Wind River Spa is one of the only parts that is not included in your spas warranty. This is because damage from abuse, pets, or acts of god like hail or blizzards are impossible to guarantee against. This is not to say that there is no warranty on the cover however. The manufacturer of the cover gives a three-year pro rated warranty against faulty seams that allow the cover to take in water beneath the vinyl. Every cover comes equipped with locking clips for safety. The male end of the clips are attached to a strap that will snap into a female clip that is mounted on the spa itself. The female clips have a locking feature for security when the tub is not in use. To open the clips make sure they are unlocked using the keys provided, then it is only a matter of squeezing the outer tabs of the clip to release it. Cover lifters are an available option with your spa purchase and come in a variety of styles and brands. Their design ranges from simple bars that elevate the cover from the ground in the open position to hydraulic assisted lifters that help make lifting the cover easy for one person. Speak to a sales associate for information about available upgrades for your cover accessories.

2) *Shell...* The shell on a Wind River Spa is a made of a Microban Acrylic that is a non-porous anti-bacterial surface. The acrylic layer is backed by an ABS plastic composite and a fiberglass acryment for structural support. The shell is then insulated with a layer of high-density foam thin enough to allow heat disbursement to the cabinet area. This will assure you years of trouble free enjoyment.

3) *Remote Panel...* The remote panel can be found on the inside wall of the spa opposite the main Spa Side controls, *(Remotes are not available in all models)*. It serves as a secondary controller for the jets and lights in your spa.

4) *Jets...* Most of the jets in your spa are interchangeable with other style jets of the same size. The jets can be turned on and off individually by turning them clockwise and counter-clockwise. The jets can be removed by turning them counter-clockwise from inside the spa until they are completely on. Once the jet is locked into the on position you can remove it by forcing another quarter turn counter-clockwise releasing it from the jet body. To reinstall it simply reverse the removal process.

5) *Light Lens...* Your spa comes equipped with a underwater low voltage light that is in place for safety and ambience. Some models may be equipped with a second Light Lens that will work in coordination with the first. Certain models are equipped with color changing LCD lights that will cycle through different stages of color each time you turn the light on and off. The other type is a white light that can be changed only with the Light Lens covers that come in various colors and clip to the outside of the lens itself. Other lighting options and upgrades are available upon request.

6) *Filter/Skimmer...* The skimmer and filter basket serve multiple functions to your spas filtration system. The telescoping skimmer is the centerpiece of the unit that floats up and down along the water line. The skimmer will create a waterfall effect in its center as the water passes over its top. This is important for breaking up oils and particles that are being filtered out of the water before they reach the filter allowing it to retain more contaminants evenly without needing constant replacement. The filter basket sits beneath the skimmer and above the filter itself and will strain out large contaminants. To access the filter basket simply give the outer ring of the Filter Skimmer a quarter turn counter clockwise to release it from its lock. Once released simply lift the skimmer away and you can pull out the basket. The filter can be pulled out once the skimmer and basket are removed. The filter must be pushed down securely to the bottom of the filter cavity before locking the basket and skimmer into place.

7) *Pillows...* The pillows in your Wind River Spa are removable by pulling the pillow away from the spas shell and releasing the snaps that hold it in place. Simply place your fingers behind the pillow and pull firmly at the tab. To reinstall the pillow simply snap it back into place making sure the snaps are lined up with their original positions. Pillows are excluded from our warranty.

8) *Air Control...* The Air Control handles in your spa will either allow or cut off the airflow to the jet stream. When the jets are running you can turn the handle clockwise and limit the flow from the jets to water only. Turning the handle counter clockwise will allow air into the jet stream and increase the pressure from those jets. Each zone in your spa has its own air control.

9) *Neck Jet Diverter...* The Neck Jet Diverter can be distinguished from the Air Control by a small arrow on the handle itself. Turning the handle clockwise will turn on the highest jets in that seat that are designed for the sub-occipital zone on the back of your neck. Turning the handle counter clockwise will turn these jets off.

10) *Primary Diverter...* The Primary Diverter is similar to the Neck Jet Diverter but is about three times as large. This is not available in all models, as it is only usable with certain jet packages. If your model is equipped with a Primary Diverter than you can customize the flow path of the water by diverting from one zone to another as you turn the handle clockwise or counter clockwise. You can split the flow path between multiple zones by leaving the diverter handle centered between the two zones in question. When the spa is not in use these valves should be left in the middle position so as to ensure good circulation of the water in the plumbing.

11) *Waterfall...* The waterfall is an 8" or 3" gray plastic housing with a small slit down the middle of it that produces a flat steady stream of water. The pressure behind the waterfall can be adjusted at the Waterfall Control. Waterfalls do not come standard with every model. Some models have waterfalls equipped with color changing LED lighting. Debris can sometimes build up in the waterfall's screen. To clean this, remove face cover and remove two screws that hold the screen in place clean and repeat process to close waterfall.

12) *Waterfall Control...* This handle controls the pressure of the waterfall. In the off position you can shut the waterfall off completely. As you open the valve the water will increasingly flow from the waterfall in a flat stream, and will reach farther into the tub the more you open the valve. Waterfalls are not standard in every model but can be ordered as an option prior to the spas manufacturing.

13) *Suction Fittings...* Suction Fittings are plastic screens that sit in the center foot well of the spa. The fittings are in place to protect the plumbing lines from being clogged. They also double as a safety feature that prevents someone or something from becoming trapped or entangled. The plumbing lines that run to these fittings double as a primary suction line for the jet pumps, and as a secondary suction for the circulation pump in case the water to the filter area becomes restricted.

14) *Wine Bucket...* The Wine Bucket is a clear plastic insert designed to insulate most bottle sizes and shapes. The cavity it rests in has a drain built in to relieve over splash that may get in the area. Be sure to store the bucket indoors when not in use to prevent weathering.

15) *Drain...* The drain is a small plastic screen that sits at the lowest point possible in your spas foot well. The water will drain down through that screen and out of the black outer drain unit located on the lower part of one of your panels. *(see Draining The Spa in the Operating Procedures section of this manual)*

My spa is not heating the water.

If your spa is set to certain temperature but is not heating the water to that temperature there are a few things you can do that may not require a service technician. The first thing to check is to see if the heat indicator light is red or orange. If the light is red but water is still cold than try resetting your breaker for five minutes to see if the tempurature rises at least two degrees over the next two hours. If not call Wind River Spas service department. If the light is orange than the first thing you want to do is shut down the power to the spa at the breaker. The power will need to be off for at least five minutes to reset the memory in the spas control system. During that five minutes remove the filter from the spa and replace the skimmer basket without a filter beneath it. If when you turn the spa back on the heat light turns red than your filter needs to be cleaned or replaced.

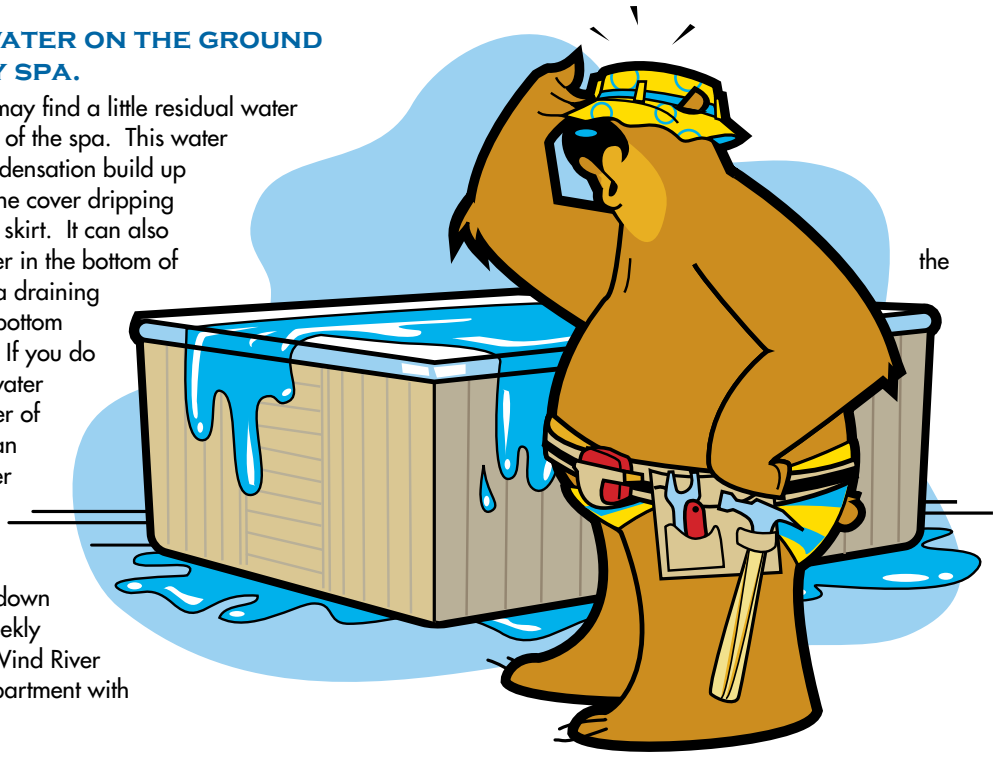
Your spa can also stop heating if the water level is too low. If the level drops enough that an air bubble can be pulled into the plumbing line a safety switch will be engaged that does not allow the heater to come on. You will need to power down the spa for five minutes while you top off the water level, *(see Filling The Spa in the Operating Procedures section of this manual)*. The power down will give the spa a chance to reset the memory during that five minutes.

I do not have ozone bubbles coming from the foot well.

If the small bubbles that usually rise up through the water in the center of the spa stop it may just be a clogged filter. To check the filter simply shut down power to the spa and remove it. Without the filter in replace the skimmer basket and turn the spa back on. If that fixes the problem the filter needs to be cleaned or replaced. If there are no bubbles when operating without a filter in the spa call Wind River Spas service department.

There is water on the ground around my spa.

Sometimes you may find a little residual water around the base of the spa. This water can be from condensation build up on the seam of the cover dripping down the covers skirt. It can also be from the water in the bottom of the wine bucket area draining out through the bottom pan on the spa. If you do not believe the water comes from either of these sources than monitor the water line and measure in inches how much the water line goes down on a daily or weekly basis, and call Wind River Spas service department with that information.



My water is getting cloudy.

Cloudy water can be a symptom of improper chemical maintenance, an improper drain timeline, or a malfunctioning ozonator. First make sure you are adhering to the instructions in the Chemical Maintenance part of the Operating Procedures section of this manual. If your maintenance is proper and the problem persists it may be time to change the water, *(see the Drain Timeline part of the Operating Procedures section of this manual)*. The other possibility is that your ozone unit is malfunctioning. Over time you will become accustom to the smell of ozone when you open your cover. Many people can tell that the ozone is malfunctioning by the scent alone. Another way to check the ozone is to listen for the unit through the vent on the left side of your equipment panel. The ozone should make a distinctive buzzing sound when operating. Make sure not to mistake the hum of the circulation pump for the buzz of the ozone. Also remember that the ozone is designed to shut down for twenty minutes every time any of the jet pumps are engaged so there will be no noise during that time. Also remember that the ozone unit does not pump the bubbles into the spa they are drawn in naturally using the water pressure from the circulation pump. This is important to note because even with the ozone not functioning the bubbles will still be drawn into the spa, but will only be oxygen bubbles.

I have weak water pressure from one or more jets.

The first thing to do if you notice weak pressure in one jet make sure that jet is on by turning it counter-clockwise. If the pressure does not improve than remove the jet from the body using the instructions provided under the Jets part of the Spa Features section of this manual. Once the jet is removed if the pressure improves than the flow path of the jet may not have been lined up properly. Simply install the jet using the instructions provided in the section mentioned above. If the pressure does not improve call Wind River Spas service department.

My adjustable jets and/or diverter valve will not turn anymore.

Even though you probably do your best to keep sand and grit out of the spa sometimes it may get in anyway. When this happens it can eventually make it into the plumbing lines. The sand in the plumbing will end up in the jet bodies and possibly in the diverter area. To remedy this problem in the jets you will need to turn the power off to the spa and use pliers if necessary to turn the stuck jet counter-clockwise from inside the spa. If using metal tools be careful not to scratch the spas surface while working, and do not to squeeze the tool too much as it may damage the jet. If you keep turning it in that direction it will eventually come out and the contaminants that are restricting the jets ability to turn should be visible and easily wiped clean. In the case of the diverter not turning you will again need to turn off the power to the spa. Next you should remove the diverter top by turning the round piece directly under the handle itself counter-clockwise until it is freed from the spa. Once it is removed wipe out the plumbing below and check the black plastic piece that inserts into the plumbing and is attached to the handle for contaminants. If Scratches are evident in the plumbing or diverter wet/dry sand paper can be used to smooth them out. To re-install simply reverse the removal process.

I have no air coming through the jets when I'm using them.

Refer to the Air Control part of the Spa Features section of this manual for instructions.

I cannot feel any floor suction for the circulation pump.

The circulation pump in your spa will pull almost all of its water through the filter and not the floor suction. The floor suction for that pump is only in place as a relief suction point in case something gets caught in the filter area.

My jets shut off on their own while the spa is in use.

There are two possible reasons why your jets are shutting down while in use. The first and most common reason is because they are designed to do so after twenty minutes. They do this in case you walk away from the spa and forget to turn them off yourself. If you left them running all the way until the spas next use it would add up on your power bill very quickly. You will no if it is the programmed shut off time if the jets can be turned right back on after shutting off. If they can not be turned right back on then their thermal protection has shut them down. If the pumps trigger the thermal protection it means that there is too much ambient heat stored up in the equipment area. This can happen in the warmer months because the spas insulation system acts kind of like a thermos. To relieve this symptom you can remove the foam insulation from behind the equipment panel during the warmer season, *(see Panels in Other Components section of the on-line comprehensive version of this manual)*. Just be sure to replace the insulation panels before the winter months so as to conserve energy costs for operating your spa.

My jets come right back on after I try to turn them off.

If the Cleanup Mode button has been pushed then the pumps will run at high speed for one minute. Often users of the spa might accidentally hit the cleanup mode on their way in or out of the spa, or sometimes you may hit the wrong button trying to adjust the light or jets. If when turning the jets off they keep coming back on, try hitting the Cleanup Mode button to turn them off.

I am getting a strange reading on my LCD display screen.

Should an error occur, the display will show a wrench icon (on the left of the screen) and one of the following error messages will toggle with the clock and the water temperature.

Hr	An internal hardware error has been detected. Contact dealer or service supplier.
HL	The system has shut the heater down because the temperature at the heater has reached 119°F (48°C). Do not enter the water! Remove the spa cover and allow the water to cool down, then shut power off and power your spa up again to reset the system.
AOH	Temperature inside the spa skirt is too high, causing the internal temperature in the equipment pack to increase above normal limits. Open the skirt and wait until error clears.
FLO	The system does not detect any water flow while the primary pump is running. Check and open water valves. Check for water level. Clean filter. If the problem persists, call your dealer or service supplier.
Prr	A problem is detected with the temperature probe. Call your dealer or service supplier.
OH	The water temperature in the spa has reached 108°F (42°C). Do not enter the water! Remove the spa cover and allow the water to cool down to a lower temperature. Call your dealer or service supplier if problem persists.

Wind River Spa's shall not be liable for loss of use of Manufacturer's products or other incidental or consequential costs, expenses or damages. Wind River Spa's shall not be responsible for any promises not specifically stated within our warranty.

Decks.

When choosing a location for your spa, *(see Location in Installation section of the online comprehensive version of this manual)*, please be aware that it is policy of Wind River Spas not to disassemble or reassemble any decking or railing that may be impairing access to the equipment area of your spa. When choosing placement for the spa, always leave access to the ventilated panel that conceals the equipment, *(see Panels in Other Components section of the on-line comprehensive version of this manual)*. In the event service is needed and there is no access the homeowner will be responsible for any labor or costs involved in gaining access to the equipment.

Electrical.

A licensed electrician is required for all spa installations. Wind River Spas can refer a number of licensed electricians, however; under no circumstances does Wind River Spas accept liability for work done by any electrician recommended or otherwise. Wind River Spas does not employ in house electricians, and none of our service technicians or delivery employees are authorized to do any electrical work outside of the components built into the spa itself. For units for the use in other than single-family dwellings, a clearly labeled emergency switch shall be provided as part of the installation. The switch shall be readily accessible to the occupants and shall be installed at least 5 feet (1.52 M) away, adjacent to, and within sight of the unit.

Freeze Damage.

In Colorado's unique climate it is important during the winter months to have your Wind River Spa full and running. In the event that you choose not to operate the spa it must be winterized. Even after the spa is completely drained the plumbing of the spa is most likely still retaining enough water to cause damage. When the water freezes it expands. This will cause the PVC plumbing to shatter and the spa will no longer hold water. To avoid this you must clear all the water lines of the spa. For information on the best method of winterizing for your situation call Wind River Spas service department.

Summer Draining.

When draining your spa for an extended period of time in the warmer months it is important to clear the water lines of as much residual moisture as possible. When your spa is empty and covered there is little opportunity for the water left in the plumbing to evaporate. By leaving the water in the lines when it is warm you are creating an environment ideal for growing algae, fungus, and bacteria. You may not know this is happening until you fill and run the spa again. The contaminants enter the tub through the jet system the first time the water circulates. When this happens you will find yourself needing to drain, refill, and sanitize the spa. This process can take days to complete and should be avoided by removing as much water as possible from your spas manifold system. For the best method of removing residual water from your particular model call Wind River Spas service department.

Whirlpools & Diverters.
If the whirlpool jet is left in the off position for long periods of time the water behind it has no where to go and will sit stagnant. Stagnant water is not being cleaned by the ozone and the chlorine you add after each use has no way of reaching it. This means it can become a breeding ground for algae, fungus, or bacteria. The same principle is true if you have a spa equipped with a diverter handle that transfers power from one seat to another. Leaving the power all on one seat all the time will leave stagnant water behind the seat not in use. To avoid these problems be sure to leave the diverter handle centered between the two seats when not in use so the daily purge cycle will flush those lines. Also make sure to turn your whirlpool jet on from time to time for the same reason.

Heavy Objects.
Do not drop heavy objects like rocks, submersible pumps, or any kind of metal objects in your spa. If they sink to fast and hit the bottom, damage to the acrylic and/or the shell structure may occur. Damage of this sort is considered excessive abuse and is not covered under warranty.

Enjoy Your New Wind River Hot Tub!